

MEASURING TREE DIAMETERS

1. Measure tree diameters at a height of 4-½ feet (4 feet 6 inches).
2. If the tree forks at 4-½ feet, measure below the swell.
3. Diameter measurement should be accurate to one inch and should be rounded up or down to the nearest inch. (Examples: 15.3" = 15"; 15.7" = 16")
4. Trees which are connected at ground level or above are considered to be multi-trunk trees. Look for bark at the base joining the stems.
 - a. Measure all trunks larger than 6-inches at a height of 4-½ feet and add for total diameter inches.
 - b. If none of the trunks is larger than 6-inches when measured at 4-½ feet, measure the trunk below the swell beneath the lowest fork.
 - c. Example: A Spanish oak with three 8-inch stems and two 4-inch stems would be shown as a "24-inch multi-stem Spanish Oak".
 - i. Only the three 8-inch stems would count toward the total.
 - ii. Show the total diameter inches in the tree list. Do not show as "8" 8" 8" SO" or "8-inch triple oak", etc. Okay to show as "24-inch SO (8 + 8 + 8)."
5. Clusters of many small stems forking from the ground do not need to be measured or shown on the tree survey.
 - a. The only exception is the Texas Madrone, for which the tree survey should show an approximate height and drip line.

TREE SURVEY SPECIFICATIONS

Current and accurate tree surveys should be submitted to the city with applications for building permits and site preparation grading and/or excavation permits (including hand clearing). Tree surveys should meet the following specifications:

1. The surveyor should locate and measure the following trees according to city standards:
 - a. All hardwood trees 6-inches and larger in diameter.
 - b. All trees of any size of the following species which is rare in Lakeway: Texas Madrone (*Arbutus xalapensis* var. *texana*).
2. Trees should be tagged and numbered on site.

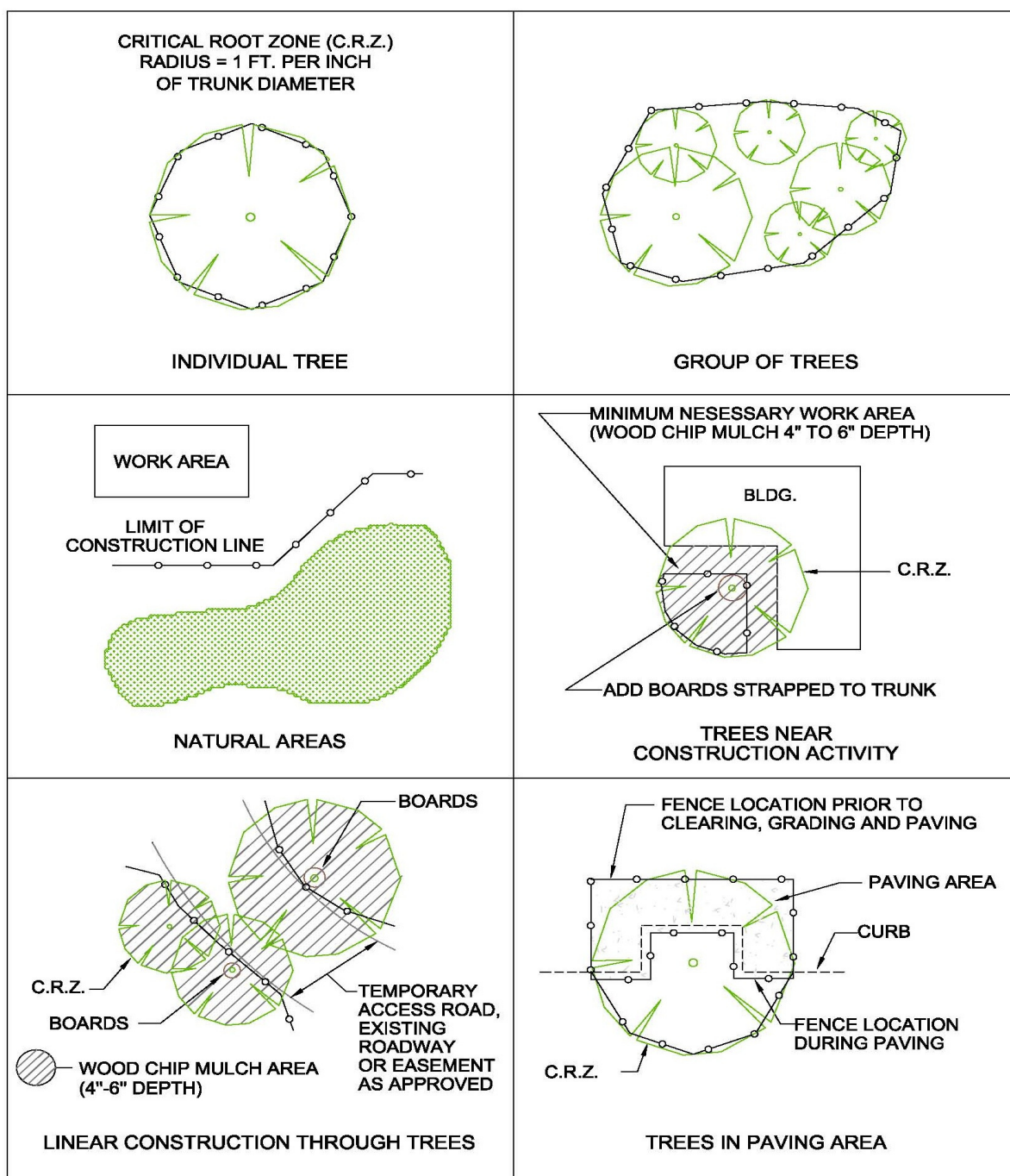
3. The tree survey plan should include a tree list showing tag number, DBH and species.
4. The tree list should show the total diameter inches of multi-trunk trees, with the exception of Texas Madrones.
5. Texas Madrones should be shown in the tree list and on the survey with an approximate height and an actual (not calculated) drip line.
6. The tree survey should show the location of each tree and a calculated drip line drawn for each tree at one foot radius per inch of diameter.
 - a. Example: a 10-inch diameter oak would show a calculated drip line with a 10-foot radius.
7. Field work for the tree survey shall be performed within one year of submittal to the City.

Texas Madrone: Small multi-stem evergreen tree, usually less than 20 feet tall, rarely 30 feet. Distinguishing feature is smooth bark, rose to deep red in color. Leaves are oval, up to 3-1/2 inches long, leathery and light green. Rare in this area, usually found on slopes sheltered beside Ashe Juniper (cedar) trees.



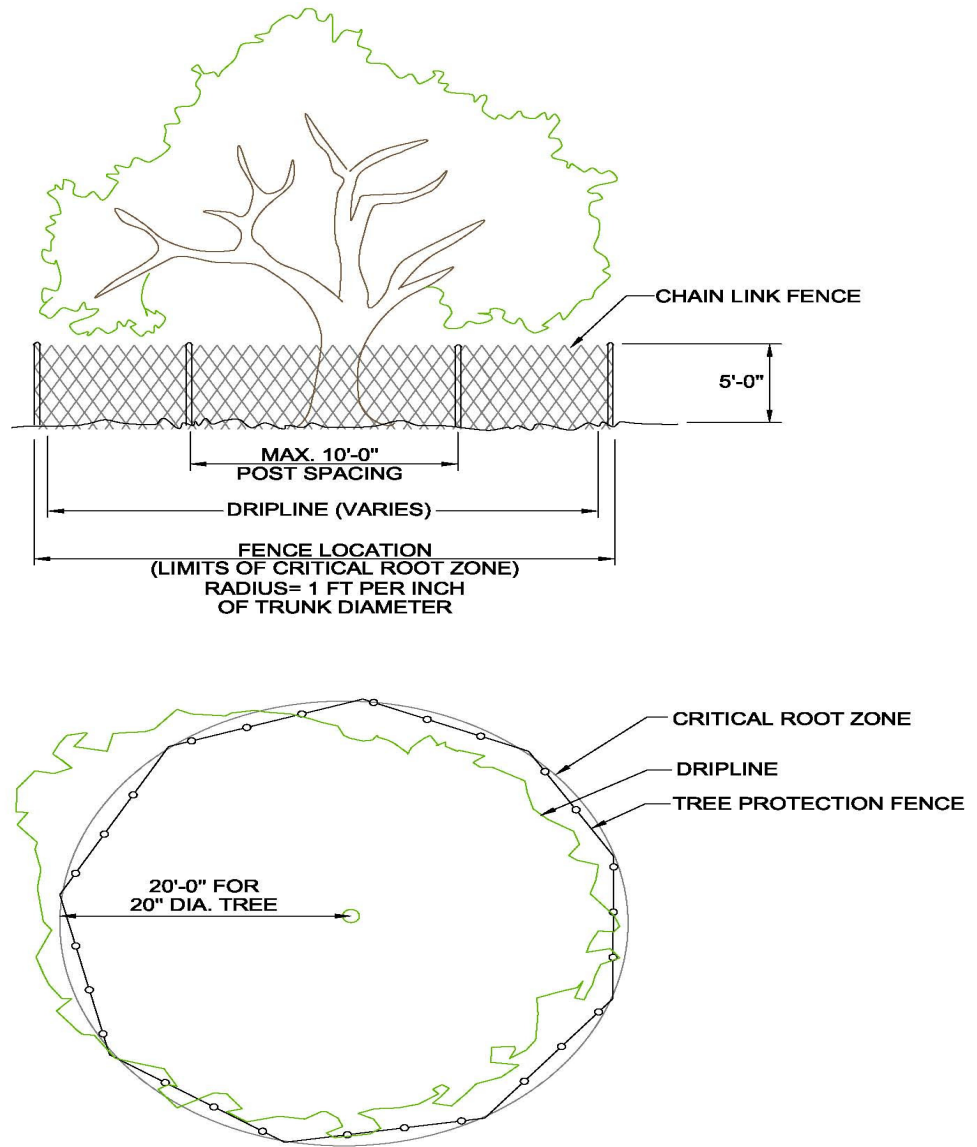
Photo by Benny J. Simpson, Texas Agricultural Extension Service, Dallas

STANDARD TREE PROTECTION LOCATIONS



Source: City of Austin Tree Standards (modified for the City of Lakeway)

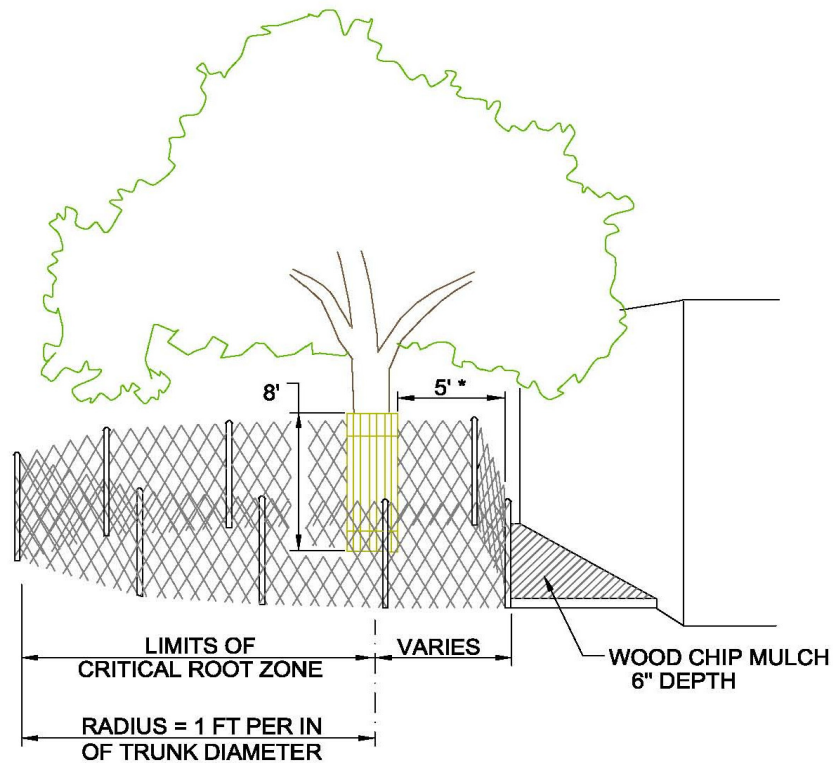
CHAIN-LINK FENCE TO DRIP LINE
Required for all trees to be preserved during construction



Protective fences should be installed prior to the start of any site preparation work (clearing, grubbing or grading), and shall be maintained throughout all phases of the construction project

See section 24.02.405, subsection (n), for tree protection notes and additional specifications.

CHAIN-LINK FENCE, PRUNING AND PLANKING
(Section 24.02.405, Subsection (n))



***AS NEEDED TO PROVIDE MINIMUM NECESSARY WORK SPACE.
IF LESS THAN 5', THEN ADD BOARDS STRAPPED TO TRUNK.**

Exceptions to installing fences at tree drip lines may be permitted in the following cases:

1. Where there is to be an approved grade change, impermeable paving surface, tree well, or other such site development, erect the fence approximately 2 to 4 feet behind the area in question.
2. Where permeable paving is to be installed within a tree's drip line, erect the fence at the outer limits of the permeable paving area (prior to site grading so that this area is graded separately prior to paving installation to minimize root damage)
3. Where trees are close to proposed buildings, erect the fence to allow 6 to 10 feet of work space between the fence and the building.
4. Where any of the above exceptions result in a fence being closer than 4 feet to a tree trunk, protect the trunk with strapped-on planking to a height of 8 feet (or to the limits of lower branching) in addition to the reduced fencing provided.
5. All branches that hang over the fence shall be pruned to a minimum height of 13.5 feet or higher if required for equipment clearance.